



# Ford-Recommended Steel Repairability Matrix

Grade	Trade Descriptions	Welding Method			Cold Repairs	Use of Heat for Repair	Temp. Range	Maximum Heat
		MIG	STRW <sup>f</sup>	MIG Braze				
Mild Steel	Mild	Yes	Yes	N/A	Yes <sup>a</sup>	Yes	Up to 1200°F (650°C)	90 sec. x 2
Laminate Steel	Quiet Steel	No	Yes	No	Yes <sup>a</sup>	N/A	N/A	N/A
Bake-Hardened	BH 180 BH 210 BH 250 BH 280	Yes	Yes	Yes <sup>b</sup>	Yes <sup>a</sup>	Yes	Up to 1200°F (650°C)	90 sec. x 2
Solid Solution-Strengthened	Solid Solution-Strengthened	Yes	Yes	Yes <sup>b</sup>	Yes <sup>a</sup>	Yes	Up to 1200°F (650°C)	90 sec. x 2
High-Strength, Low-Alloy (HSLA)	HSLA 200 HSLA 250 HSLA 260 HSLA 300 HSLA 340 HSLA 350 HSLA 500 HSLA 550	Yes	Yes	Yes <sup>b</sup>	Yes <sup>a</sup>	Yes	Up to 1200°F (650°C)	90 sec. x 2
Dual-Phase Steel (DP)	DP 500 DP 600	Yes	Yes	Yes <sup>b</sup>	Yes <sup>a</sup>	No	N/A	N/A
Dual-Phase Steel (DP) <sup>c</sup>	DP 700 DP 900 DP 1000	Yes <sup>d</sup>	Yes	Yes <sup>b</sup>	No	No	N/A	N/A
Ultra-High-Strength Steel (UHSS)	Boron, Martensitic <sup>e</sup>	Yes <sup>a</sup>	Yes	Yes <sup>b</sup>	No	No	N/A	N/A
Transformation-Induced Plasticity Steel (TRIP)	TRIP 590 TRIP 780 TRIP 980	N/A	N/A	N/A	N/A	N/A	N/A	N/A

<sup>a</sup> Cold repairs can be performed if damage excludes kinks; may section only if workshop manual procedure allows.

<sup>b</sup> Metal Inert Gas (MIG) braze allowed for non-structural applications only.

<sup>c</sup> Dual-phase steels DP 700, DP 900 and DP 1,000 must be replaced at factory joints; may section only if workshop manual procedure allows.

<sup>d</sup> For DP 900, DP 1,000, and Boron, use Metal Inert Gas (MIG) plug welding only; no stitch welding.

<sup>e</sup> Boron and Ultra-High-Strength Steel/Martensitic components must be replaced at factory joints; sectioning is not allowed.

<sup>f</sup> STRW: Squeeze-Type Resistance Spot Welding

